Objective

- SWBAT relate organs in the circulatory system to their functions.
Full Moon of February Rose Last Night
Red blood cells!
A blood clot!
The Heart

- Made of **cardiac muscle tissue**
- Pumps **oxygen-rich blood** from the alveoli (lungs) out to the body
- Pumps **oxygen-poor blood** from the body into the alveoli
Fossilized mammalian heart
Check For Understanding

Which statement about the heart is false?

A. The heart pumps blood with fresh oxygen from the lungs to the body.
B. The heart pumps blood with fresh oxygen from the body to the lungs.
C. The heart pumps blood that lacks oxygen from the body into the lungs.
D. The heart is made mostly of muscle tissue.
Blood Vessels

• Hollow tubes that carry blood
• Three types:
  1) Arteries
  2) Capillaries
  3) Veins
Check For Understanding

Which is *not* a type of blood vessel?

A. Artery
B. Trachea
C. Capillary
D. Vein
Arteries

- Largest blood vessels
- Carry oxygen-rich blood away from the heart out to the body
- Clogged arteries restrict flow of blood

A = AWAY!
from heart

artery
Normal vs. Clogged Artery
Clogged coronary artery
Check For Understanding

Which statement about arteries is true?

A. Arteries are the smallest blood vessels.
B. Arteries carry blood to the heart from cells in the body.
C. Arteries are part of the respiratory system.
D. Arteries carry blood away from the heart to cells in the body.
Capillaries

- Thinnest blood vessels
- In capillaries:
  - Oxygen leaves blood to enter body cells
  - Carbon dioxide leaves body cells to enter blood
Capillaries in a cat
capillary
1650s (adj.), 1660s (n.), from L. capillaris "of hair," from capillus "hair" (of the head); probably related to caput "head." Borrowed earlier as capillar (14c.).

Capillary attraction attested from 1813. Capillarity is recorded from 1830, from Fr. capillerité.
Veins

• Carry **oxygen-poor blood back to** the heart from body cells
• Bring carbon dioxide and wastes back from cells to leave the body
from heart
artery
capillaries
vein
to heart
Check For Understanding

Which statement about arteries and capillaries is *true*?

A. Veins carry blood away from the heart, whereas arteries carry blood to the heart.

B. Both arteries and veins carry oxygen-rich blood.

C. Veins carry carbon dioxide toward the heart, whereas arteries carry oxygen away from the heart.
Check For Understanding

As blood flows to the heart from the toes and fingers, it travels mainly through tissue called

A veins.
B alveoli.
C arteries.
D capillaries.
Check For Understanding

Which statement correctly identifies a difference between the function of most arteries and veins?

A  Arteries carry red blood cells, whereas veins carry white blood cells.

B  Veins carry red blood cells, whereas arteries carry white blood cells.

C  Arteries carry blood to the heart, whereas veins carry blood away from the heart.

D  Veins carry blood to the heart, whereas arteries carry blood away from the heart.